

TITLE 83: PUBLIC UTILITIES
CHAPTER I: ILLINOIS COMMERCE COMMISSION
SUBCHAPTER C: ELECTRIC UTILITIES

PART XXX
INTERCONNECTION OF DISTRIBUTED GENERATION EQUIPMENT
TO ELECTRIC UTILITY DISTRIBUTION SYSTEMS

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AUTHORITY: Implementing Section 9-241 and authorized by Section 10-101 of the Public Utilities Act [220 ILCS 5/9-241 and 10-101].

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Section XXX.010 Definitions

"Affected Systems" —means any electric system not owned or operated by the interconnection provider, that is either directly or indirectly connected to the interconnection provider's electric system ~~that and~~ could be adversely affected by the interconnection and parallel operation of the interconnection customer's distributed ~~generation equipment~~resource.

"Agreement" —means an interconnection and parallel operation agreement for a distributed ~~generation equipment~~resource by and between the interconnection provider and the interconnection customer.

~~Automatic Disconnect Device — an electronic or mechanical switch used to isolate a circuit or piece of equipment from a source of power without the need for human intervention~~

~~Delivery Service — the services the interconnection provider may provide to deliver capacity or energy generated by interconnection customer to a buyer or delivery point.~~

~~Disconnect (verb) — to isolate a circuit or distributed generation equipment from a source of power. If isolation is accomplished with a solid-state device, “disconnect” shall mean to cease the transfer of power~~

~~Disconnect Switch — a mechanical device used for isolating a circuit or distributed generation equipment from a source of power.~~

~~“Distributed Generation EquipmentResource” — includes any on-site small resources, distributed generation facilities, self-generators, small electric generation facilities and electric customer-generators means equipment that can become a source of electric power, including but not limited to both generators and/or energy storage technologies.~~

~~“Facilities Study” — means a study, executed in accordance with Section XXX.120, which that determines specific changes to the electric high-voltage transmission or electric distribution system(s) necessary to interconnect distributed generation equipment, and to determine, with accuracy, the cost of those changes. The facilities study may shall also include suggested changes to the Interconnection customer's proposed distributed generation equipmentresource if the interconnection customer provider believes such these changes would reduce interconnection costs.~~

~~“Feasibility/Impact Study” — means a study, executed in accordance with Section XXX.110, which that identifies the effect(s) of interconnecting the a small distributed resource to the an interconnection provider's high-voltage transmission or electric distribution system, including identification of potential violations and the effect the interconnection would have on system reliability. The feasibility/impact study also estimates the magnitude of costs associated with facilities and/or system modifications necessary for completing the interconnection.~~

~~“FERC” — means the Federal Energy Regulatory Commission~~

~~“IEEE” — means Institute of Electrical and Electronics Engineers, Inc., a non-profit technical professional organization responsible with members in 150 countries, responsible for technical publishing, conferences, and consensus-based standards activities.~~

~~“Interconnection Customer” — means any entity proposing to interconnect a distributed generation resources to an interconnection provider's system or any entity that has entered into a valid interconnection agreement with an interconnection provider.~~

"Interconnection Provider" —means an electric-public utility as defined by the Illinois Public Utilities Act [220 ILCS 5], that owns and/or operates an electric system to which the interconnection customer desires to interconnect a distributed resource, or has interconnected a distributed resource.

"Line Section" means a section of the distribution system between two sectionalizing devices in the area electric power system.

~~Islanding—a condition in which a portion of the interconnection provider's system that contains both load and a small resource is isolated from the remainder of the interconnection customer's system.~~

"Parallel Operation" —means the operation of a distributed resource connected to an interconnection provider's electric system for a period of six (6) or more cycles.

"Point of Common Coupling (PCC)" —means ~~T~~the point at which the interconnection between the interconnection provider's system and the interconnection customer's distributed generation equipment/resource interface occurs. ~~Typically, this is the customer side of the interconnection customer's meter.~~

~~Primary Screening Criteria—the criteria listed in Section XXX.070.~~

Radial Feeder-Distribution Circuit - a distribution line that branches out from a substation and is normally not connected to another substation or another circuit sharing the common supply of electric power.

~~Secondary Screening Criteria—the criteria listed in Section XXX.080~~

~~Short Circuit Contribution—the result of dividing the maximum short circuit contribution of the small resource(s) by the short circuit contribution available from the Company system without the small resource(s), converted to a percentage.~~

~~Small Resource—includes any on-site small resources such as distributed generation facilities, self-generators, small electric generation facilities and electric customer-generators (see also "Distributed Generation Equipment")~~

"UL" —means Underwriters Laboratory, Inc., an independent, not-for-profit product safety testing and certification organization operating in Canada, Europe, Asia, Latin America, and the U.S.A.

~~Utility Grade Relay—a relay that is constructed to comply with, as a minimum, the most current version of the industry standards for non-nuclear interconnection provider facilities.~~

~~Verification Test—a test performed upon initial installation and repeated periodically to determine that there is continued acceptable performance.~~

~~"Violation" —means a condition on an electric high voltage transmission or power distribution system that, based on established planning and operation standards, is considered unacceptable by the owner and/or operator of the system.~~

Section XXX.020 Purpose

~~The purpose of this Code Part is to state the terms and conditions that govern the interconnection and parallel operation of distributed generation equipment resources in order to give all Illinois electric customers the ability to utilize distributed generation resources equipment, to provide cost savings and reliability benefits to customers, to establish technical requirements that will promote the safe and reliable parallel operation of distributed generation equipment resources, to enhance both the reliability of electric service and economic efficiency in the production and consumption of electricity, and to facilitate the use of distributed generation equipment resources in order to provide electric system benefits during periods of capacity constraints.~~

Section XXX.030 Applicability

- a) All interconnection providers are required to adhere to the provisions in ~~Code this~~ Part ~~XXX~~. The interconnection procedures in ~~Code this~~ Part ~~XXX~~ are available to interconnection customer's proposing to interconnect distributed ~~generation equipment resources~~ to the interconnection provider's electric distribution system ~~or high voltage transmission system~~. This Part applies to all distributed resource interconnections operating in parallel to an interconnection provider's electric system except those interconnections within the exclusive jurisdiction of the FERC. This Part does not apply to distributed resources that are operated in isolation from an electric system.
- ~~b) Terms used herein shall have the meanings specified in Section XXX.010 Definitions.~~
- c) Neither these procedures nor the requirements included ~~hereunder in this Part~~ apply to distributed ~~generation equipment resources~~ interconnected or approved for interconnection with electric ~~power transmission or distribution~~ systems prior to 60 business days after the effective date of ~~these procedures~~ this Part.

Section XXX.040 Interconnection Agreement

- a) The interconnection provider shall issue an interconnection agreement to the interconnection customer if:
 - 1) The interconnection ~~customer—provider receives~~submits a completed application ~~to—from~~ the interconnection customer in accordance with Section XXX.050; and
 - 2) the interconnection customer's proposed distributed ~~generation equipment~~resource meets the specifications in IEEE 1547-2003 (2003 edition, approved July 28, 2003, published by the Institute of Electrical and Electronics Engineers, Inc., 3 Park Avenue, New York, NY 10016-5997. No later amendments or additions are incorporated.) ~~and all other applicable codes and standards~~, and the Interconnection customer passes the primary screening criteria in Section XXX.070 and/or secondary screening criteria in XXX.080; or
 - 3) the interconnection customer's proposed distributed resource after undergoing—undergoes a feasibility/impact study under Section XXX.110 and, if necessary, a facilities study under Section XXX.120 and the interconnection provider determines that the ~~small distributed~~ resource ~~may—can~~ be interconnected safely and reliably ~~with following modifications to the interconnection provider's electric transmission and/or distribution system(s),~~ modifications to the interconnection provider's facilities, modifications to an affected system, and/or modifications to the interconnection customer's facilities, or no modifications whatsoever.

Section XXX.050 Application for Interconnection

- a) To assist an interconnection customer in the interconnection process and in accordance with Section XXX.140, the interconnection provider shall designate an employee or office from which information on the application process and on the ~~affected system of an~~ interconnection provider's electric system ~~—can—shall~~ be obtained through informal requests from the interconnection customer presenting a proposed project for a specific site. System information provided to interconnection customers ~~should—shall~~ include relevant system studies, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the system. The interconnection provider shall comply with requests for such information if the interconnection customer agrees to comply with applicable confidentiality requirements.
- b) The interconnection customer shall submit an application to the interconnection provider's designated employee or office in the form in

Appendix B ~~for single-phase equipment 20 kVA or smaller, “Short Form Application for Single Phase Attachment of Parallel Generation Equipment 20 kVA or Smaller to the Electric System” or in the form in Appendix C - “Standard application for Attachment of Parallel Generation Equipment to the Electric System”~~ for single phase equipment larger than 20 kVA or for three-phase equipment of any size. Applications shall be date and time-stamped upon receipt. The original date and time-stamp applied to the application at the time of its original submission for interconnection shall be accepted as the qualifying date-and time-stamp for the purposes of any timetable in this ~~Code~~ Part. The interconnection provider shall ~~provide~~ issue a notification of receipt to the interconnection customer within ~~3~~ three business days ~~of~~ after receiving the interconnection customer’s application. The interconnection provider ~~wishall~~ will ~~notify~~ issue a notification to the interconnection customer within ~~10~~ ten business days ~~of~~ after the receipt of the application whether the application is complete or incomplete. Submissions and notices under this Section shall be satisfied by electronic mail, facsimile, U.S. Mail, or another mutually agreed upon method.

- c) If the application is incomplete, the interconnection provider ~~will~~ shall provide along with the notice that the application is incomplete, a list detailing all information that must be provided to complete the application. The interconnection customer ~~will~~ shall have 10 business days after receipt of the notice to submit the listed information or to request an extension of time, not to exceed 30 days, to provide ~~such~~ the listed information. If the interconnection customer does not provide the listed information or a request for an extension of time within the 10 business day deadline, the application ~~will~~ shall be deemed withdrawn. An application ~~will~~ shall be considered complete upon submission of the listed information to the interconnection provider.
- d) Certain applications may require minor modifications while being reviewed by the interconnection provider. Such minor modifications to a pending application shall not require the filing of a new application. Any modification to machine data or equipment configuration or to the interconnection site of the ~~small~~ distributed resource not agreed to in writing by the interconnection provider and the interconnection customer ~~may~~ shall be deemed a withdrawal of the application and ~~may~~ shall require submission of a new application. However, when it is mutually agreed that machine data or equipment configuration modifications ~~will~~ shall have no significant effect on the ~~small~~ distributed resource interconnection, the interconnection provider ~~wishall~~ will not require the interconnection customer to submit a new application.

- e) The interconnection provider shall treat the application and any communications concerning the nature of proposed ~~small-distributed~~ resource interconnection confidentially. The interconnection provider shall not use ~~such~~ knowledge of proposed ~~small-distributed~~ resource projects submitted to it for interconnection or study to prepare competing proposals to the interconnection customer that offer either discounted rates in return for not installing the distributed ~~generation resource~~, to offer competing proposals to install distributed ~~generation equipment resource~~, or for any purpose other than facilitating the application and interconnection processes. The interconnection provider is prohibited from sharing any confidential information about proposed small resource interconnections with its affiliates, or any third party.
- f) The interconnection provider shall process all applications in a non-discriminatory manner. Applications ~~will~~ shall be processed in the order that they are ~~received~~ determined to be complete.
- g) The interconnection customer shall submit proof of site control to the interconnection provider with its distributed resource interconnection application. Documentation of site control must be submitted for small resource additions with the complete application. Site control ~~may~~ shall be demonstrated through:
 - 1) a recorded deed, recorded lease or recorded agreement proving ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing a ~~small-distributed~~ resource ~~facility~~; or
 - 2) ~~an~~ a recorded option to purchase ~~or~~ /acquire a site and/or a leasehold interest in a site for such purpose; ~~or~~
 - 3) ~~an exclusivity or other business relationship between small resource facility and the entity having the right to sell, lease or grant the small resource facility the right to possess or occupy a site for such purpose.~~

Section XXX.060 Initial Review

Within ~~45-fifteen~~ business days after the interconnection provider notifies the interconnection customer it has received a complete application the interconnection provider shall perform an initial review using the primary and secondary screening criteria set forth in Section XXX.070 and Section XXX.080 respectively, and shall notify the interconnection customer of the results in accordance with Section XXX.090 and include with the notification copies of the analysis results and data underlying the interconnection provider's determinations under the screens. Interconnection providers shall file tariffs that include rates for the initial review. ~~Such~~ These rates shall be

differentiated by the nameplate capacity of the generator being interconnected and characteristics of the circuit at the proposed point of interconnection.

Section XXX.070 Primary Screening Criteria

The primary screens required in this section include the following:

- a) For interconnection of a proposed ~~small-distributed~~ resource to a radial distribution circuit, the aggregated generation, including the proposed ~~small-distributed~~ resource generation capacity, on the circuit ~~will~~shall not exceed 5% of the total circuit annual peak load, or 20% of the total circuit annual minimum load, whichever is less, as most recently measured at the substation.
- b) For interconnection of a proposed ~~small-distributed~~ resource to the load side of spot network protectors, the proposed ~~small-distributed~~ resource must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, ~~will~~shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW.
- c) The proposed small resource ~~cannot will~~shall not be connected on the load side of a secondary network protector, except as allowed under subsection (b)-above for a spot network.
- d) The proposed ~~small-distributed~~ resource, in aggregation with other generation on the distribution circuit, ~~will~~shall not contribute more than 10% to the distribution circuit's maximum short circuit current at the point on the high voltage (primary) level nearest the proposed point of common coupling.
- e) The proposed ~~small-distributed~~ resource, in aggregate with other generation on the distribution circuit, ~~will~~shall not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or interconnection customer equipment~~interconnection customer distributed-generation equipment~~ on the system to exceed 85% of the short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds 85% of the short circuit interrupting capability.
- f) The proposed ~~small-distributed~~ resource, in aggregate with other generation interconnected to the distribution low voltage side of the substation transformer feeding the distribution circuit where the interconnection customer proposes to interconnect the ~~small-distributed~~ resource, ~~will~~shall not exceed 10 MW in an area where there are known or posted transient stability limitations to generating units located in the

general electrical vicinity (e.g., 3 or 4 ~~transmission~~-voltage level busses from the voltage at the point of interconnection).

- g) For interconnection of a proposed single-phase ~~small-distributed~~ resource where the primary distribution system is three-phase, four-wire, the ~~small distributed~~ resource ~~will~~shall be connected line-to-neutral. At any point of common coupling, the single-phase generation connected to any one phase shall not exceed the greater of 10% of the minimum feeder load or 167 kVA. For interconnection of a proposed single-phase ~~small distributed~~ resource where the primary distribution system is three-phase, three-wire, the ~~small-distributed~~ resource ~~will~~shall be connected line-to-line.
- h) For interconnection of a proposed three-phase ~~small-distributed~~ resource to a three-phase four-wire distribution circuit or a distribution circuit having mixed three-wire and four-wire sections, the aggregate generation capacity including the proposed ~~small-distributed~~ resource ~~will~~shall not exceed 10% of line section peak load.
- i) If the proposed ~~small-distributed~~ resource is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed ~~small-distributed~~ resource, ~~will~~shall not exceed 20 kVA.
- j) If the proposed ~~small-distributed~~ resource is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition ~~will~~shall not create an imbalance between the two sides of the 240 volt service of more than 20% of nameplate rating of the service transformer.
- k) The proposed ~~small-distributed~~ resource's point of common coupling ~~will~~shall not be on a transmission line.

Section XXX.080 Secondary Screening Criteria

The secondary screens include the following:

- a) For interconnection of a proposed ~~small resource~~distributed resource to a radial distribution circuit, the new ~~small resource~~distributed resource's capacity in aggregate with other generation on the circuit ~~will~~shall not exceed 15% of total circuit peak load, or 50% of the total circuit annual minimum load, whichever is less, as most recently measured at the substation; nor ~~will~~shall it exceed 15% of a distribution circuit line section annual peak load, or 50% of the distribution line section annual minimum load, whichever is less. ~~A line section is defined as that section of the~~

~~distribution system between two sectionalizing devices in the area electric power system, as defined in national industry standards.~~

- b) For interconnection of a proposed ~~small resource~~distributed resource to the load side of spot network protectors, the proposed ~~small resource~~distributed resource ~~must—shall~~ utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, ~~will—shall~~ not exceed the smaller of 5% of a spot network's maximum load or 50 kW, ~~and must comply with all requirements of approved industry standards for interconnection technical specifications and requirements.~~
- c) For the interconnection of a proposed ~~small resource~~distributed resource to any network, the ~~small resource~~distributed resource must utilize a protective scheme that ~~will~~ ensure that its current flow ~~will~~shall not affect the network protective devices including reverse power relays or a comparable function. Synchronous ~~small resource~~distributed resources ~~cannot—shall not~~ be interconnected to a ~~secondary~~ network.
- d) For interconnection of a proposed ~~small resource~~distributed resource that is an induction generator or that utilizes inverter-based protective functions, both of which include reverse power relay functions, the ~~small resource~~distributed resource's total net generating capacity, in aggregate with other ~~small resource~~distributed resources interconnected on the load side of network protective devices, does not exceed the lesser of 10% of the minimum load on the network or 50 kW. A ~~small resource~~distributed resource does not export to any network.
- e) The proposed ~~small resource~~distributed resource, in aggregation with other generation on the distribution circuit, ~~will~~shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.
- f) The proposed ~~small resource~~distributed resource *in aggregate* with other generation on the distribution circuit ~~will~~shall not cause any distribution equipment, protective devices (including but not limited to substation breakers, fuse cutouts, and line reclosers), or interconnection customer equipment on the system to exceed 90% of their short circuit interrupting capability; nor is the interconnection proposed for a circuit that already exceeds the 90% short circuit interrupting capability limit.
- g) The proposed ~~small resource~~distributed resource's point of common coupling ~~will~~shall not be on a transmission line.

- a) If the initial review determines that the proposed interconnection passes the primary screening criteria, then the interconnection application ~~will~~shall be approved and the interconnection provider ~~will~~shall ~~provide~~ provide ~~issue~~ issue the interconnection customer an executable interconnection agreement within ~~5-five~~ business days after the determination.
- b) If the initial review determines that the proposed interconnection passes the secondary screening criteria and fails the primary screening criteria, but the interconnection provider determines through the initial review that the ~~small~~ small resource distributed resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection provider ~~will~~shall ~~provide~~ provide ~~issue~~ issue the interconnection customer an executable interconnection agreement within ~~5-five~~ business days after the determination.
- ~~c) If the initial review determines that the proposed interconnection fails both the primary screening criteria and the secondary screening criteria, but the interconnection provider determines through the initial review that the small resource distributed resource may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection provider will provide interconnection customer an executable interconnection agreement within 5 business days after the determination.~~
- d) If the initial review determines that the proposed interconnection fails the primary screening criteria and passes the secondary screening criteria, but the interconnection provider determines from the initial review that the ~~small~~ small resource distributed resource cannot be interconnected consistent with safety, reliability, and power quality standards unless the interconnection customer is willing to consider modifications to the ~~small~~ small resource distributed resource, the interconnection provider ~~will~~shall describe, in writing or through electronic mail within 10 business days after the determination, ~~small resource modifications necessary the issues to be addressed prior to the distributed resource interconnection for the interconnection customer to interconnect with the interconnection provider's system. Such recommendations~~ The interconnection provider shall include copies of data and analyses results underlying the interconnection provider's determination of the need for small resource distributed resource modifications and a detailed explanation of the modifications.

The interconnection provider shall forward an executable interconnection agreement to the interconnection customer within 10 business days after confirmation that the interconnection customer has agreed to make the

necessary changes to the ~~small resource~~distributed resource at the interconnection customer's cost.

- e) If the initial review determines that the proposed interconnection fails the primary screening criteria and passes the secondary screening criteria, but the interconnection provider determines from the initial review that the ~~small resource~~distributed resource cannot be interconnected consistent with safety, reliability, and power quality standards unless the interconnection customer is willing to consider modifications to the interconnection provider's system or facilities, the interconnection provider ~~will~~shall recommend, in writing or through electronic mail within ~~10~~ten business days ~~of~~after the determination, system or facility modifications necessary for the interconnection customer to interconnect with the interconnection provider's system. ~~Such~~These recommendations shall include copies of data and analyses underlying the interconnection provider's determination of the need for system or facilities modifications, a detailed explanation of the necessary system or facility modifications, an estimated time for the completion of the system or facility modifications and a cost estimate with a binding maximum value to complete the system or facility modifications. Within ~~30~~thirty business days, the interconnection customer must issue payment to the interconnection provider for the system or facility modifications in order to be considered for interconnection. When the actual cost of the necessary facility or system modifications is below the binding maximum cost estimate, the interconnection provider shall refund the difference to the interconnection customer without interest.

The interconnection provider shall forward an executable interconnection agreement to the interconnection customer within 10 business days after confirmation that the interconnection customer has agreed to pay for the necessary system or facility modifications to the interconnection provider's system.

- f) If the initial review determines that the proposed interconnection fails both the primary and the secondary screening criteria ~~and the interconnection provider determines from the initial review that the small resourcedistributed resource cannot be interconnected consistent with safety, reliability, and power quality standards~~, then the proposed interconnection ~~will~~shall be addressed under Section XXX.XXX – Scoping Meeting.

Section XXX.100 Scoping Meeting

The scoping meeting described ~~herein in this Section~~ is available to an interconnection customer whose application for interconnection to the interconnection provider's system

fails both the primary and secondary screening criteria and where the interconnection provider has determined that the distributed generation equipment cannot be interconnected without further studies.

- a) At the request of either party, a scoping meeting willshall be held within 10 business days, or as otherwise mutually agreed to by the parties, after the interconnection provider notifies the interconnection customer that the application fails both the primary and secondary screening criteria. The interconnection provider and interconnection customer willshall bring to the meeting or make available via teleconferencing, personnel, including system engineers, and other resources ~~as may be reasonably~~ required to accomplish the purpose of the meeting.
- b) The purpose of the scoping meeting shall be to discuss the interconnection customer's interconnection request, and to review existing non-confidential studies and information relevant to the interconnection customer's interconnection request. The parties shall further discuss whether the interconnection provider should perform a feasibility/impact study in accordance with Section XXX.110. If the parties agree that a feasibility/impact study should be performed, the interconnection provider willshall provide the interconnection customer, no later than 5-five business days after the scoping meeting, a feasibility/impact study agreement including an outline of the scope of the study and a cost estimate with a binding maximum value to perform the study.
- c) The scoping meeting may be omitted by mutual agreement in which case the interconnection provider will provide a feasibility/impact study agreement no later than 5 business days after it is agreed to omit the scoping meeting. The feasibility/impact study agreement shall include an outline of the scope of the study and a cost estimate with a binding maximum value to perform the study. In order to remain in consideration for interconnection, the ~~interconnection~~ interconnection customer ~~requesting a feasibility/impact study~~ must return the executed feasibility/impact study agreement within 15 business days from the date it is received, in accordance with Section XXX.110, or the interconnection customer's application shall be deemed withdrawn.

Section XXX.110 Feasibility/Impact Study

The ~~purpose of the~~ feasibility/impact study ~~is to~~shall identify the effect(s) of interconnecting the ~~small resource~~distributed resource to the ~~high-voltage transmission or electric distribution~~interconnection provider's system, including identification of potential violations caused by the interconnection, the effect the interconnection would have on system reliability, and to assist in the determination of a ~~maximum-binding~~ cost estimate ~~of for~~ any facility modifications required for interconnection.

- a) A deposit of ~~fifty percent~~50% of the interconnection provider's binding maximum cost estimate of the feasibility/impact study costs may be required from the interconnection customer within 15 business days from the receipt of the feasibility/impact study agreement. Any study fees ~~will~~shall include a summary of professional time. An Interconnection customer must pay the remainder of the study fees that exceed the deposit within 20 business days ~~of~~after receipt of the invoice or resolution of any dispute but shall pay no more than the interconnection provider's binding maximum cost estimate. If the deposit exceeds the invoiced fees, the interconnection provider ~~will~~shall refund the excess amount within 20 business days ~~of~~after the invoice without interest. In performing the feasibility/impact study, whenever possible, the interconnection provider shall rely, ~~to extent reasonably practicable,~~ on existing studies of recent vintage to model interconnection conditions. The interconnection customer ~~will~~shall not be charged for such existing studies; however, the interconnection customer ~~will~~shall be responsible for charges associated with any new study or modifications to existing studies that are ~~reasonably~~ necessary to perform the feasibility/impact study except for amounts that exceed the binding maximum value of the interconnection provider's cost estimate.
- b) The feasibility/impact study shall include the following analyses:
- 1) Short circuit analysis: including identification of any equipment short circuit capability limits exceeded as a result of the interconnection;~~;~~;
 - 2) Power flow analysis: including identification of any potential thermal overload or voltage limit violations resulting from the interconnection;~~;~~;
 - 3) Voltage drop and flicker analysis: Including an examination of the expected magnitude and frequency of occurrence;~~;~~;
 - 4) Protection analysis: Including coordination studies and identification of necessary changes in equipment, coordination set points, and/or grounding requirements as a result of the interconnection;~~;~~; and
 - 5) Cost estimate with a binding maximum value for any system or facility modifications and a time estimate for completion of such modifications including: a description of all facility and/or system modifications required to interconnect the ~~small resource~~distributed resource ~~to an electric distribution power system or directly to a high voltage transmission~~the interconnection provider's system. The interconnection provider ~~may also suggest modification(s) to the interconnection customer's proposed facilities if such~~

- ~~modifications would help~~shall describe all functional deficiencies identified that may help the interconnection customer to address potential violations. The estimate shall itemize costs to address all potential violations that are a direct result of the interconnection, including short circuit, power flow, voltage, and protection issues.
- c) The feasibility/impact study ~~will~~shall consider all generating facilities that, when the feasibility/impact study is performed:
- 1) ~~Are~~are directly interconnected to the ~~high-voltage transmission system and/or~~ electric power distribution system~~;~~; or
 - 2) ~~Are~~are interconnected to affected systems and may have an impact on the interconnection request~~;~~; ~~and/or~~
 - 3) ~~H~~have a pending higher queued ~~interconnection request~~signed and valid interconnection agreement to interconnect to ~~the high-voltage transmission and/or the electric power distribution~~interconnection provider's system.
- d) A feasibility/impact study shall consider interconnection of the ~~small resource~~distributed resource regardless of its initial indicated purpose in order to avoid the further expense and interruption of operation for reexamination should the interconnection customer later change the purpose.
- e) If so requested by the interconnection customer at the time of the initial interconnection request, a feasibility/impact study ~~will~~shall consider multiple potential points of interconnection at a proposed project site, at the interconnection customer's cost. If the interconnection customer requests a feasibility/impact study of additional potential points of interconnection after the studies of those in the initial interconnection request have been completed, then the additional requests shall be treated as a new interconnection request in all respects.
- f) Within 45 business days ~~from~~after the date an authorized feasibility/impact study agreement and deposit are received from the interconnection customer, the interconnection provider shall transmit a feasibility/impact study report to the interconnection customer that details the results of the feasibility/impact study.
- 1) In instances where the feasibility/impact study shows no potential for ~~high-voltage transmission system or electric power distribution~~ system violations, the interconnection provider ~~will~~shall immediately within five business days send the interconnection customer either

a facilities study agreement, in accordance with Section XXX.120, including an outline of the scope of the study and a cost estimate with a binding maximum value to perform the study, or an interconnection agreement in the event that no facilities study is required for interconnection.

- 2) In instances where a feasibility/impact study shows potential for ~~high voltage transmission system or electric power distribution system~~ violations, ~~and the affected on electric~~ systems that are operated by the interconnection provider, the required remedial action(s) and the estimated binding maximum cost of taking such remedial action(s), including an assignment of costs responsibilities, shall be included in the feasibility/impact study report. If necessary, the interconnection provider ~~will~~shall send the interconnection customer a facilities study agreement in accordance with Section XXX.120.

- ~~3) In instances where the small resource is to be connected to the interconnection provider's distribution system, but the feasibility/impact study shows potential for high voltage transmission system violations and the interconnection provider does not operate the high voltage transmission system (ger-I rewrote this section 110(f)(3) because all the varying comments indicate that there were serious problems with it)~~

- 3) When the interconnection provider determines the potential for violations on an affected system, the interconnection provider shall issue to the interconnection customer, no later than at the time the feasibility/impact study report is issued, the identity of each affected system found to have potential for violations due to the distributed resource, including contact information for each affected system. The interconnection provider shall include an estimate of what its costs would be to coordinate the distributed resource project with each affected system with potential for violations. The interconnection customer shall respond to the interconnection provider's notification within five business days, stating whether the interconnection provider is to act as liaison between the interconnection customer and each affected system that shows a potential for violations:.

- iA) If the interconnection customer notifies the interconnection provider it is to act as liaison between the interconnection customer and the affected system, Within within 5 five business days followingafter transmittal of the feasibility/impact study reportreceipt of notification, the interconnection provider shall notify-inform the appropriate

~~high voltage transmission service provider~~affected system of the distributed resource, in accordance with any interconnection notification protocols ~~as provided for in the high voltage transmission provider's Open Access Transmission Tariff on file with the FERC.~~

ii) ~~B)~~ Within ~~5~~five business days ~~from the interconnection provider's notification of a potential for violations on an affected system,~~ the interconnection provider shall send the interconnection customer an affected system transmission impact~~study~~ agreement, including an outline of the scope of the study and ~~a binding maximum~~an estimate of the cost ~~to perform~~of the study. In order to remain under consideration for interconnection, the interconnection customer must return an executed ~~transmission impact~~affected system study agreement and a deposit of the equivalent of half the estimated cost of the impact study within 30 business days. Interconnection customers must pay any study costs that exceed the deposit within 20 business days ~~of after~~ receipt of the invoice or resolution of any dispute up to the binding maximum cost estimate. If the deposit exceeds the invoiced costs, ~~the~~ interconnection provider ~~will~~shall return ~~such the~~ excess within 20 business days ~~of after receipt of~~ the invoice without interest.

iii) ~~C)~~ The interconnection ~~customer provider~~ shall coordinate the ~~transmission impact~~affected system study, and shall attempt to convey results to the ~~Interconnection interconnection~~ customer within 45 business days ~~of after the~~ receipt of the authorized ~~transmission impact~~affected system study agreement and deposit.

iv) ~~D)~~ ~~Within~~No later than 30 days ~~of after~~ receipt of the results of the ~~transmission impact~~affected system study, the interconnection customer must notify the interconnection provider of its intention to proceed. If the interconnection customer chooses to proceed, the interconnection provider ~~will~~shall send the interconnection customer a facilities study agreement in accordance with Section XXX.120.

4) Where ~~high voltage transmission systems and electric power distribution systems have separate owners, such as is the case with transmission-dependent utilities ("TDUs") whether investor-owned or not~~a feasibility/impact study indicates potential for affected system violations, and the interconnect customer decides to coordinate all aspects of the distributed resource interconnection

~~with the affected system~~, the interconnection customers ~~may~~must apply to the ~~nearest high voltage transmission provider (Transmission Owner, Regional Transmission Operator, Independent Transmission interconnection customer, or Independent Transmission Provider)~~ providing transmission service to the TDU~~affected system~~ to request project coordination if that ~~high voltage transmission provider is notified in accordance with interconnection notification protocols as provided for in the high voltage transmission provider's~~the regulations that govern interconnections to the affected system tariff on file with the FERC. In ~~such~~these cases, the ~~interconnection customer~~ shall cause the ~~interconnection provider to receive a copy of the affected system's study results as soon as they are available.~~interconnection provider shall be provided a copy of the transmission impact study report, but shall not be responsible to coordinate the transmission impact study.

- 4) ~~Within 30 days of~~after receipt of the results of the ~~transmission impact~~affected system study, the interconnection customer must notify the interconnection provider of its intention to proceed. If the interconnection customer chooses to proceed, the interconnection provider ~~will~~shall send the interconnection customer a facilities study agreement in accordance with Section XXX.120.

Section XXX.120

Facilities Study

- a) ~~The purpose of the~~ facilities study ~~is to determine~~s the need for specific modifications to the ~~high voltage transmission or electric~~and distribution system(s) necessary to interconnect the ~~small resource~~distributed resource, and to determine, ~~with accuracy~~, the cost of ~~those~~ modifications ~~if any~~. The interconnection provider ~~may~~shall also suggest ~~optional modifications~~alternative approaches to the interconnection customer's proposed distributed ~~generation equipment~~resource interconnection if the interconnection provider believes ~~such modifications~~alternative approaches would reduce interconnection costs or provide other benefits. If the feasibility/impact study determines that no electric distribution system interconnection facilities are required, the facilities study shall not be required, and the project shall proceed directly to the execution of an interconnection agreement.
- b) A facilities study agreement ~~will~~shall be transmitted to the interconnection customer with the feasibility/impact study report. The facilities study agreement shall include an outline of the scope of the study and a maximum binding cost estimate to perform the facilities study. When the actual cost of the facilities study is below the cost estimate, the

interconnection provider shall refund the difference to the interconnection customer without interest. In order to remain under consideration for interconnection, the interconnection customer must return the executed facilities study agreement or a request for an extension of time within 30 business days after receipt of the facilities study agreement. The interconnection provider may require a deposit of the equivalent of 50% of the maximum binding estimated cost of the facilities study when the interconnection customer returns the executed facilities study agreement. ~~If the interconnection provider determines that no high-voltage transmission system or electric power distribution system interconnection facilities are required, the facilities study will not be required and the project will proceed directly to the execution of an interconnection agreement.~~

- ac) High voltage transmission system and/or electric power distribution system interconnection design for any required interconnection facilities and/or system modifications ~~will~~shall be performed under a facilities study agreement between the interconnection customer and the interconnection provider. The interconnection provider may contract with consultants, including contractors acting on behalf of the ~~high-voltage transmission service provider or the electric power distribution service~~interconnection provider, ~~as appropriate,~~ to perform the ~~bulk of some or all of~~ the activities required under the facilities study agreement. ~~In some cases, t~~The interconnection customer and the interconnection provider may reach agreement allowing the interconnection customer to separately arrange for the design of some or all of the required ~~high-voltage transmission or electric power distribution~~interconnection facilities. ~~In such cases~~If the interconnection customer arranges for the design of some or all of the required interconnection facilities, facility design ~~will~~shall be reviewed and/or modified prior to acceptance by the interconnection provider, under the provisions of the facilities study agreement. If the parties agree to separately arrange for design and construction, interconnection providers shall make sufficient information available to the interconnection customer to permit the interconnection customer to obtain an independent design and cost estimate for any necessary facilities.
- bd) Whether system upgrades are required or the required facilities are limited to interconnection facilities, the facilities study ~~must~~shall be completed within 45 business days ~~of~~after the receipt of the facilities study agreement.
- ee) Where system modifications or additional interconnection facilities are required to permit the interconnection of a ~~small resource~~distributed resource, the interconnection customer ~~will~~shall bear the cost of ~~such the~~ system upgrades or interconnection facilities as determined by the facilities study and at no more than the estimated binding maximum cost

provided for in the facilities study agreement. The interconnection customer may be credited for the cost of system or facility modifications or such costs may be offset by mutual agreement with subsequent interconnection customers, or by other laws, rules, tariffs, or billing experiments.

- df) An interconnection provider may propose to group facilities required for more than one interconnection customer addition in order to minimize facilities costs through economies of scale, but any interconnection customer may require the installation of facilities required for its own system if it is willing to pay the costs of those facilities.

Section XXX.130 Compliance

No later than 30 days after the effective date of this ~~Code~~ Part as amended, each interconnection provider shall file a tariff or tariffs for interconnection and parallel operation of distributed generation equipment in conformance with the provisions of this ~~Code~~ Part. The utility ~~may~~shall file a new tariff or a modification of an existing tariff. Any modifications of existing tariffs or offerings of new tariffs relating to this subsection shall be consistent with this ~~Code~~ Part. Concurrent with the tariff filing ~~in~~required by this section, each utility shall submit:

- a) an initial review fee schedule and all supporting cost data for the fees;
- b) an interconnection agreement in form of the agreement attached as Appendix A; and
- c) standard applications for interconnection and parallel operation of distributed generation in the form of the ~~attached~~ applications in Appendices B and C.

Section XXX.140 Designation of Interconnection Provider Contact Persons

- a) ~~Each~~The interconnection provider ~~and interconnection customer~~ shall designate a person or persons who ~~will~~shall serve as their respective interconnection ~~provider's~~ contacts for all matters related to distributed ~~generation resource~~ interconnection.
- b) Each interconnection provider shall identify its distributed resource contact person to the Illinois Commerce Commission's Director of the Consumer Services Division and ~~the~~ Director of the Energy Division ~~its distributed generation resource contact person~~.
- c) Each interconnection provider shall provide convenient access through its internet web site to the names, telephone numbers, mailing addresses

and electronic mail addresses ~~for of~~ its distributed ~~generation resource~~ contact ~~person~~employees or office.

Section XXX.150 All Reasonable Efforts

The interconnection provider shall make all reasonable efforts to meet all time frames provided in ~~these procedures~~this Code Part unless the interconnection provider and the interconnection customer agree to a different schedule. The interconnection provider shall make all reasonable efforts to complete system ~~upgrades~~modifications on or before the estimated deadline for completion. If an interconnection provider cannot meet a deadline provided ~~herein in this Part~~, including deadlines provided in agreements, it shall notify the interconnection customer in writing no later than three business days after the deadline has passed. The notification shall explain the reason for the failure to meet the deadline and provide an estimated time by which it ~~will~~shall complete the applicable interconnection procedure. The interconnection provider shall also include the notification as well as any other relevant materials in an informational filing with the Illinois Commerce Commission no later than seven business days after notification is provided to the interconnection customer. ~~Such Informational~~ filings shall be filed with the Chief Clerk's Office and copies shall be sent to the Director of the Consumer Services Division and the Director of the Energy Division.

Section XXX.160 Metering

Any metering necessitated by the use of the ~~small resource~~distributed resource shall be installed in accordance with state regulatory requirements and interconnection provider's electric tariffs.

Section XXX.170 Installation and Commissioning

- a) Upon execution of an interconnection agreement, the interconnection customer shall provide the interconnection provider with an estimate of the date on which ~~installation of~~ the distributed ~~generation equipment~~resource shall be ~~completed~~operational. The estimated date shall be no later than the latter of 18 months after the date that the interconnection agreement was executed or 18 months after the date that system or facility modifications were completed by the interconnection provider. Installation of the interconnection customer's distributed ~~generation equipment~~resource shall be completed as specified in the standardized application and any studies indicating a need to modify the interconnection customer's distributed ~~generation equipment~~resource. The interconnection customer shall inform the interconnection provider in writing when the installation of the distributed ~~generation~~

equipmentresource is complete. If the customer fails to install and inform the interconnection provider of the installation within ~~the latter of 18 months following the date that the interconnection agreement was executed or 18 months following the date that system or facility modifications were completed by the interconnection provider~~the time limits specified in this subsection, the interconnection customer must reapply for interconnection before interconnection can take place unless an extension on the deadline to interconnect is mutually agreed to between the interconnection customer and the interconnection provider.

- b) Commissioning tests of an interconnection customer's installed distributed generation equipmentresource shall be performed pursuant to applicable codes and standards. The interconnection provider ~~must~~shall be given 10 business days written notice, or as otherwise mutually agreed to by the parties, of the tests and shall have the right to be present to complete the interconnection, inspect the interconnection customer's distributed generation equipmentresource for compliance with applicable codes and standards, and witness the commissioning tests.
- c) If the inspection of the interconnection customer's distributed generation equipmentresource does not result in a finding that the distributed generation equipmentresource is in compliance with applicable codes and standards and the executed agreement, the interconnection provider shall provide written notification to the interconnection customer explaining why the generation equipmentdistributed resource was not in compliance. Once the interconnection customer has addressed the non-compliance in the notification, the interconnection customer shall provide the interconnection provider with 10 business days notice, unless otherwise mutually agreed to between interconnection customer and interconnection provider, that it is prepared for another inspection.

Section XXX.180 Reporting Requirements

Each interconnection provider shall maintain records concerning applications received for interconnection and parallel operation of distributed generation. Such records ~~will~~shall include the date each application is received, documents generated in the course of processing each application, correspondence regarding each application, and the final disposition of each application.

Section XXX.190 Complaint Procedures

Complaints alleging violations of ~~Code~~ Part ~~XXX~~ shall be filed pursuant to 83 Ill. Adm. Code 200.